PATENT SPECIFICATION

Application Date: May 6, 1930. No. 13,746/30. **351,167**

Complete Accepted: June 25, 1931.

COMPLETE SPECIFICATION.

Improved Insect Screen for Sliding Sash Windows.

I, ENRICO PIETRO DAVANZO, of 61, Fitzroy Street, Surry Hills, near Sydney, in the State of New South Wales, Commonwealth of Australia, a subject of the King of Italy, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to an insect screen of flexible reticular material for use in connection with a sliding sash window, and comprises an improved screen of the type in which one end of such screen is detachably connected to the window sash and the other end is attached to a spring roller so arranged that the screen is brought into use to cover the aperture created by opening the window and is coiled upon the roller when the window is closed.

The invention consists in a screen of this type which is attached to the roller by means of a clamping bar supported by pivot pins eccentrically mounted on the ends of the roller.

The practical application of my invention is illustrated in the accompanying drawings wherein:

Fig. 1. Is a front elevation.

Fig. 2. An end sectional elevation on A A Fig. 1.

Fig. 3. A sectional plan on B B Fig. 1.

Fig 4. A front sectional elevation of a part.

Fig. 5. A front and

Fig. 6. a corresponding end elevation.

Fig. 7. A part front elevation.

Fig. 8. A cross section on C C Fig. 7.

Figs. 9 & 10 illustrate the application of the invention to existing windows Fig. 9 being a front elevation and 10 an end sectional elevation on D D Fig. 9.

Similar parts where they appear in the several figures are indicated by the same reference numerals.

Figs. 1 to 8 illustrate a mode by which the invention may be conveniently applied to new windows because the sashes and window frame can, during manufacture, be readily adapted to the application of the several parts of the invention.

The screen 1, which may be of wire gauze or other suitably flexible material, is at its upper end secured in a U shaped screen bar which is in two parts 2 and 3 see Figs. 7 and 8.

The material of the screen is folded upon a thin strip 4 of wood or other material and passed into the part 2 of the bar, a hole in the screen fitting upon an enlarged part of a pin 5 which is fixed at its inner end in the part 2 and has a head 6.

Part 3 of the bar has a pear shaped slot 7 through the larger end of which is passed the head 6 when part 3 is being placed in position.

Lateral movement of part 3 then causes the shank of pin 5 to pass into the smaller end of slot 7 the two parts of the bar and the screen being clamped together.

The screen bar 4 with the screen fixed within it is passed into a longitudinal channel 8 in the bottom of the sash a flange 9 upon the bar bearing against the sash.

The screen bar is retained in the channel by two pairs of hooks 10 and 11 see particularly Figs. 2 and 4.

Each pair of hooks is located in a recess 12 in the sash and is fixed upon a turn spindle 13 passing across the recess and having a turning knob 14.

The hooks of each pair are located and adapted to engage pins 15 and 16 projecting one from each part of the bar.

The upper ends of the hooks are curved and are pressed against by flat springs 17 one in each recess which prevent movement of the hooks until they are turned by knob 14.

When the arrangement shown in Figs. 1 to 8 is used a longitudinal aperture 42 is provided in the frame for passage of the screen, and a groove 43 receives part of the screen bar when the sash is closed thereby covering aperture 42.

The side edges of the screen are guided in vertical grooves 44, 44 formed in the pulley stiles 45—45.

When it is desired to dispense with the screen the knobs are turned to release the pins from the hooks and the screen bar may then be drawn out of the channel and, being free, the screen is coiled upon the spring roller.

[Price [redacted]

In the lower end of the window frame 18 is a pocket recess 19 the front of which is closed by a door 20 carried upon hinges 21.

Within the recess is located a rotatable roller 22 supported upon trunnion pins 23 and having an internal coil spring 24 which tends to rotate the roller in one direction in a well known manner.

The lower end of the screen is fixed to the roller by a longitudinal clamping bar 25 (see Figs. 5 and 6) the ends 26—26 of which are bent at right angles and eccentrically pivoted by pins 27—27 upon the ends of the roller as shown in the Figs.

When the end of the material of the screen is passed beneath the clamping bar and the bar pressed down upon it, pull upon the screen has the effect of tightening the grip of the bar.

When the screen is to be applied to a window frame already in use consequently rendering it inconvenient to form the pocket in the frame to receive the roller and the channel for the screen bar in the edge of the sash, the arrangement shown in Figs. 9 and 10 is employed.

The spring roller 22 is carried in a semi-cylindrical casing 28 fixed to the frame by screws 29 passed through a flange 30 at each end of the casing.

The sides of the screen are guided in groove bars 31 fixed upon each side of the frame.

The screen bar which is similar to that already described has its ends guided in the groove bars and has slots 32 into which pass the supporting hooks 33.

Each of these hooks work in a slot 34 in an angle bracket 35 fixed to the face of the sash, and, may be slid in the slot by a thumb piece 36 for the purpose of engaging the hook with the screen bar or for releasing it therefrom when it is not required for use.

As an accessory to the insect screen described, and to prevent the passage of insects between the panes of glass 37—38 of two sashes when the window is open a flap 39 of flexible material is fixed upon the frame of one sash as shown in Fig. 9 and bears lightly against the glass of the other sash.

In Fig. 2 the flap is substituted by a sliding bar 40 of wood or the like which is located in a recess in the sash rail and projected by spiral springs 41 within the recess.

The bar bears against the glass of the opposite sash thereby preventing the passage of insects.

When the window is being closed a bevelled portion 42^1 of the edge of the lower sash contacts with the bar and pushes it back into the recess. No claim, however, is made to the accessory for preventing the passage of insects between the panes of glass.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. An insect screen of the type hereinbefore referred to, which is attached to the roller by means of a clamping bar supported by pivot pins eccentrically mounted on the ends of the roller.

2. A screen according to Claim 1, wherein a screen bar formed by two separate parts terminates the end of the screen connected to the window sash, this end of the screen being secured between these parts of the bar by the means for connecting such parts together.

3. A screen according to Claim 2, in which the means for connecting the parts of the screen bar together comprise a pin secured to one such part and adapted to engage a pear-shaped slot in the other such part.

4. A screen according to Claim 2, wherein the window sash is formed with a groove to receive the screen bar which is provided with projecting pins, whilst a turn spindle journalled in the sash and extending across the groove rigidly supports hooks adapted to engage said pins for the purpose of supporting the screen bar in the groove.

5. A screen according to Claim 4, in which springs co-operate with curved surfaces of the hooks to prevent movement thereof until they are actuated by the turn spindle.

6. A screen according to Claim 2, which is connected to the window sash by hooks engaging slots in the screen bar and slidable in slots formed in angle brackets secured to the face of the window sash.

7. The improved insect screen for use in connection with a sliding sash window, substantially as hereinbefore described and as illustrated in the accompanying drawings.

Dated this 5th day of May, 1930.

MARKS & CLERK.

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SHEET 1

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1.

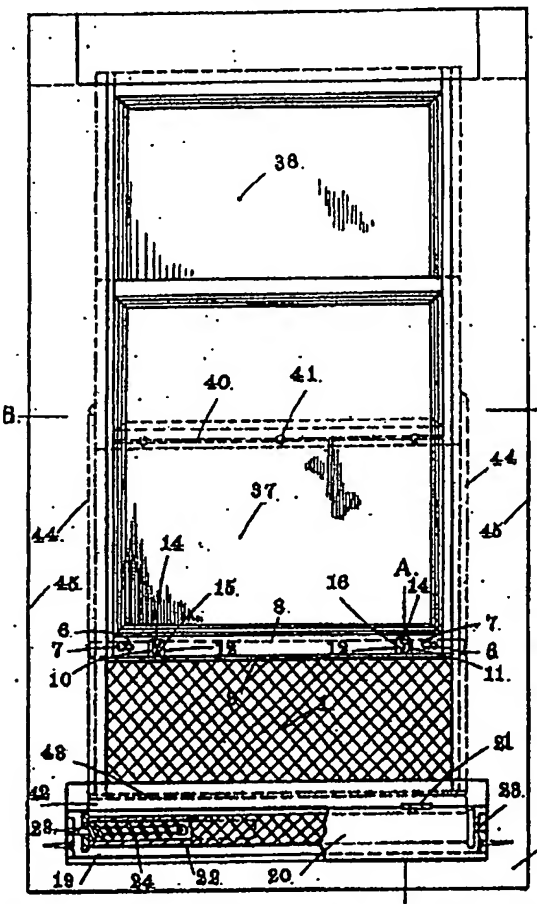


Fig. 2.

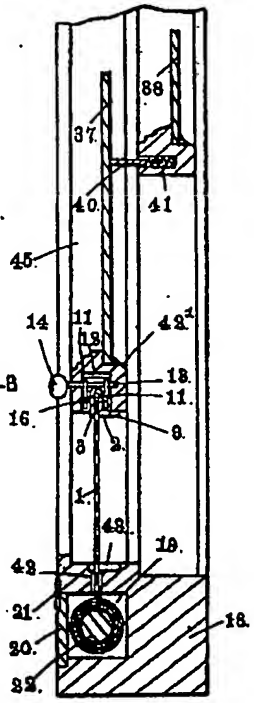


Fig. 3.

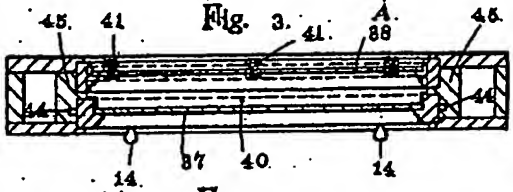


Fig. 5.

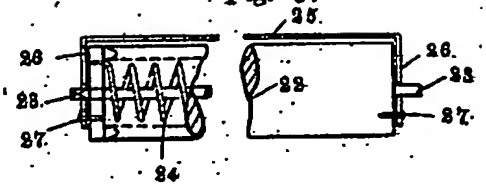


Fig. 6.

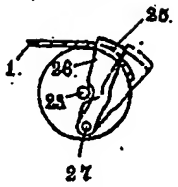


Fig. 9.

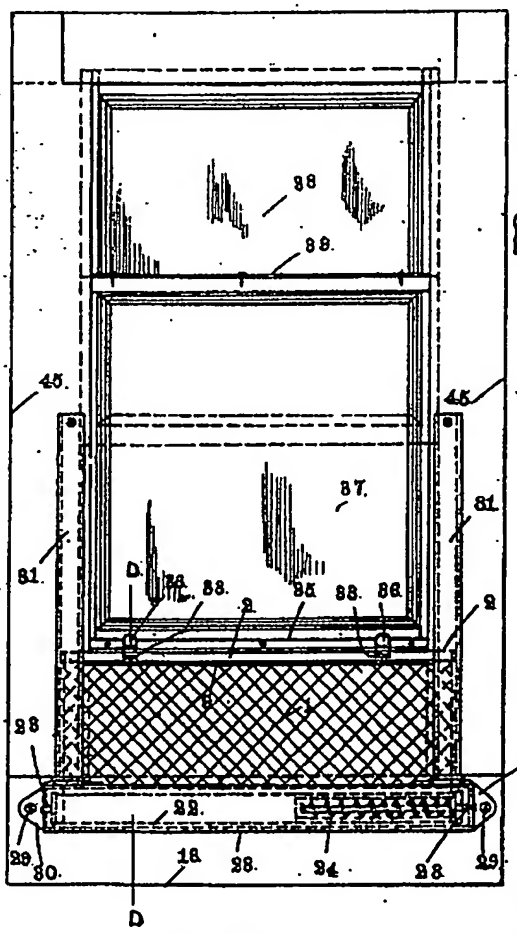


Fig. 4.

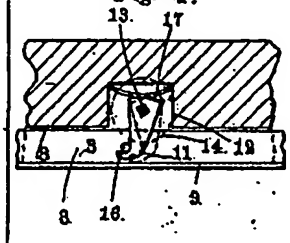


Fig. 10.

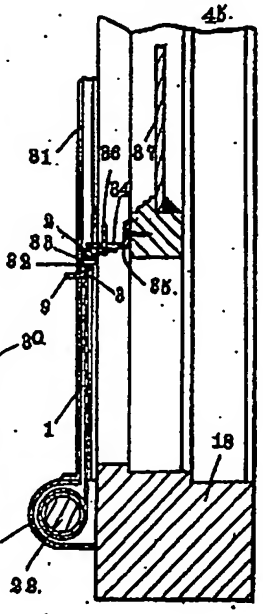


Fig. 7.

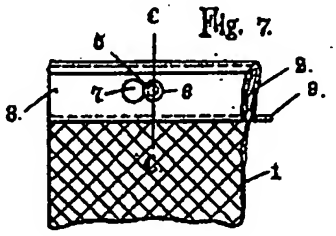
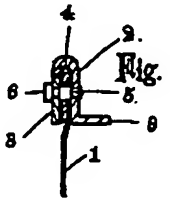


Fig. 8.



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